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Division of Forensic Science	Amendment Designator:
IMPRESSION UNIT TRAINING MANUAL	Effective Date: 30-March-2004

### VII RECOVERY OF IMPRESSION EVIDENCE BY LIFTING AND CASTING

## 7.1 PURPOSE

7.1.1 To acquaint and familiarize the student with the procedures and techniques for processing crime scenes and evidentiary items for the recovery of impression evidence. The student will be required to become knowledgeable in the choice and application of impression development techniques.

# 7.2 OBJECTIVES

- 7.2.1 The student will attain:
  - The understanding of the various lifting and casting methods of recovering and preserving impression evidence at a crime scene and in the laboratory.
  - The ability to electrostatically recover impression evidence.
  - The ability to prepare and cast both footwear and tire tracks using dental stone.
  - The understanding why dental stone, not plasters or Plaster of Paris, is recommended for the casting of footwear and tire track impressions.

### 7.3 GOAL

7.3.1 Upon completion of this training segment, the student will possess knowledge and understanding that will enable one to determine the correct procedure to be used on any evidentiary surface for impression development.

## 7.4 DISCUSSION

7.4.1 Footwear and tire track impressions should always be photographed prior to attempting any development or further preservation by lifting or casting. Choice of the processing procedure for a particular surface will generally be automatically known to an examiner based on experience. Two-dimensional and three-dimensional impressions are preserved differently based solely on their unique nature. However, two-dimensional prints may be preserved by several means, after being photographed.

#### 7.5 EXAMINATION

- 7.5.1 Successful completion of this segment of training will be determined by written and performance tests.
  - 1. Lifting two-dimensional impressions using various adhesive lifting devices.
  - 2. Available electrostatic lifting devices will be utilized by the student.
  - 3. Casting techniques in various situations will be demonstrated by the student.

## 7.6 REFERENCES FOR TOPIC VII

- 1. Footwear Impression Evidence, Bodziak, 1990, pp 63-102, 103-130
- 2. <u>Footwear Identification</u>, Cassidy, 1980, pp 7-13, 18-40, 61-64, 159-161

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3.	<u>Identification News</u> , "Electrostatic Lifting Procedure for Two-Dimension 37:1, pp 8-11	onal Dustprints", Lee & Gaensslen, 1987	
4.	<u>Journal of Forensic Identification</u> , "Using the ESDA to Detect Dusty Shoepirnts on Paper", Majamaa, 1991, 41:6, pp 421-425		
5.	Footwear Evidence, Abbott, 1956		
6.	<u>Identification News</u> , "Casting Materials", Vandiver, 1980, Vol. 30. No.	12, pp 3-9	
7.	<u>Journal of Forensic Identification</u> , "Photographing and Casting Footwear/Tiretrack Impressions in Snow", Hueske, 1991, 41:2, pp 92-95		
8.	AFTE Journal, "Snowprint-Wax Casting Material Information", Warren	n, April 1983, Vol. 15, No. 2, pp 77-78	